IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

10/562,430

Filing Date:

December 27, 2005

Applicant(s):

Nestor Rekalde Arrieta

Group Art Unit:

3679

Examiner:

Gregory John Binda

Title:

OUTER JOINT PART WITH SUPPORTING DISC

Attorney Docket No. GKNG 1267 PCT (36249-33)

Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

The Applicants request review of the final rejection in the above-identified application.

No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheets. No more than five (5) pages are provided.

U.S. Application Serial No. 10/562,430

Attorney Docket: GKNG 1267 PCT (36249-33)

Pre-Appeal Brief Request for Review

I am the attorney or agent of record.

The Commissioner is authorized to charge any fees due to Deposit Account No. 04-1061.

Respectfully submitted,

Dickinson Wright PLLC Attorneys for Applicant(s)

Date: April 11, 2008

By: Cononius E. Donohue

Reg. No. 44,660

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PRE-APPEAL BRIEF

Commissioner For Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

This pre-appeal brief is being filed concurrently with a Notice of Appeal and review of the pre-appeal brief is respectfully requested. Applicants believe there are no fees due for this document, however, if any fees are due, the Patent Office is authorized to charge or refund any fee deficiency or excess to Deposit Account No. 04-1061.

REMARKS

The issue is whether claims 17-25 & 29-31 are anticipated by Booker et al (5,833,243) and whether claims 17-31 are unpatentable over Mizukoshi (6,135,571) in view of Coleman (2,713,504). The Applicant believes and will set forth below, that the Examiner has made clear errors in these rejections and has failed to properly identify one or more essential elements needed for a prima facie rejection.

The Examiner asserts that Booker in Figure 8 clearly identifies the claimed elements of the present invention. The Applicant seeks reconsideration. Booker, in Figure 8, discloses an outer race 84 of a constant velocity joint and a transfer case output component 82. The two parts 82,84 are connected with each other in a rotationally fixed way by means of a splined connection, wherein the runout portions of the splines of part 84 form a stop face which is abutted by the end portions of the splines of part 82. Between the parts 82 and 84 there is provided an annular gap which is sealed by a seal 80 in order to prevent dirt from entering the connection region. Thus, Booker lacks the claimed connection between the outer joint part and the wheel hub, i.e. that the outer joint part, via threading, is clamped to a wheel hub. Booker teaches to use runouts of the splined connection as an axial stop. There is no axial clamping of part 82 relative to part 84, which would not make any sense, since otherwise the elastic seal 80 would be destroyed. Booker also fails to disclose that the wheel hub is supported (directly by an outer bearing or indirectly via an inner bearing race) on the supporting face of the outer joint part and that the annular disc accommodates the clamping forces of the threading. In Booker, part 82 is not supported against a radial supporting face of part 84, but against the runouts of the splined connection. In order to have a proper seal between parts 82 and 84, Booker must have an annular gap between parts 82 and 84 so that the parts must not be axially clamped together,

otherwise the seal 80 would be damaged. Therefore, clearly Booker fails to disclose essential

elements of the claimed invention and the rejection should be overturned.

The Examiner asserts that Mizokoshi teaches all the limitations of the present invention

absent material makeup of the annular disc, and that Coleman teaches this makeup. The

Examiner disagrees with Applicant's assertion that Mizokoshi fails to disclose clamping forces

and cites Figure 35 and elements 141 and 142 as rebuttal. Figure 35, referenced by the

Examiner, shows a bolt 142 being screwed into the threaded hole 141 and tightened. However, it

can be seen that there is an annular gap between the outer joint part and the hub such that the

outer joint part can axially move towards the hub. This further described in column 35, lines 42-

45, where it reads that the hub 6a is resiliently held in the axial direction between the retaining

plate 143 and the 0-Ring 142. This clearly means that the outer joint part can be moved

resiliently relative to the wheel hub. Thus Figure 35 of Mizokoshi lacks a wheel hub being

supported (either directly by an annular beading or indirectly over an inner bearing race) on the

supporting face of the outer joint part. Furthermore, as the Examiner correctly stated, Mizokoshi

fails to disclose an annular disc made of a low-friction material.

It is further seen from Mizokoshi in Figures 8-13 which illustrate wheel-hub devices,

wherein clearly the outer joint part 11 is not axially clamped to the hub 6a, as claimed in the

present invention. The opposite is the case. In Figure 8, the axial positioning of the outer joint

part relative to the wheel hub is realized by means of the securing ring 35 which abuts an end

face of the inner bore of the hub. The outer joint part simply cannot be axially clamped to the

wheel hub, since there are no clamping means whatsoever. It is true that Mizokoshi teaches that

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the resilient plate 49 is clamped together with the ring-shaped portion 46 (col 18, lines 39-44)

and that in the case of this example, the splined shaft 30 is prevented from being displaced

relative to the splined bore 28 further towards the left than as shown in Figure 8, by means of the

ring shaped portion 56 and the resilient plate 49 (col 18, lines 46-49). However, this does not

include that the outer joint part is clamped to the wheel hub by means of a threading, as claimed

in the present invention. In Mizokoshi no axial clamping forces are effective between the outer

joint and the wheel hub, as can be achieved by theading. Further, Figure 8 lacks the annular disc

which is positioned on the supporting face of the outer joint part and which accommodates the

clamping forces of the threading. Similarly the text passage (col 3, line 61) referred to by the

Examiner merely states the annular ring is provided to prevent play between the joint bell and the

wheel hub. This fails to include that the outer joint part, via threading is clamped to the wheel

hub nor that the annular disc accommodates the clamping forces of the threading.

Reconsideration is formally requested.

Finally, the Applicant believes the Examiner has misconstrued Coleman. Coleman

discloses fluid tight joints which bear no relationship with the claimed outer joint part being

connected to a wheel hub. A person skilled in the art would not be compelled to take Coleman

into account when looking for a solution to the object of the claimed invention. The Applicant

asserts that such combination is strictly hindsight in light of the present invention.

In addition, compared with claim 18 of the present invention, Coleman fails to disclose

the following features:

• an outer joint part of a constant velocity joint in the form of a joint bell with a

connecting journal and a radial support face

• the outer joint part which, by threading, is clamped to a wheel hub to be slid on to

the connecting journal

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• a wheel hub which is supported on the supporting face of the outer joint part, and

• an annular disc made of low-friction material being position on the supporting face of the outer joint part and accommodating the clamping forces of the

threading.

Therefore, the Applicant asserts that a prima facie case of obviousness or anticipation has

not been properly established and reconsideration is requested. None of the cited references

addresses the problem addressed by the present invention, much less teaches or suggests a

solution thereto. Neither Booker nor Mizokoshi teaches an outer joint part being clamped to a

wheel hub via a threading, as claimed in the invention. Thus, no noise cab be generated between

the outer joint part and the wheel hub in the references, so the references cannot comprise a

solution to the problem as is addressed in the present invention.

If the Examiner believes that prosecution of the application can be expedited by way of

an Examiner's amendment, the Examiner is invited to contact the Applicant(s) attorney at the

telephone number listed below.

Respectfully submitted,

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